

#3



OIIPE

RAW SEQUENCE LISTING

DATE: 01/23/2002

PATENT APPLICATION: US/09/854,811

TIME: 14:37:41

Input Set : N:\Crf3\RULE60\09854811.raw

Output Set: N:\CRF3\01232002\I854811.raw

1 <110> APPLICANT: Reiter, Robert E.
2 Witte, Owen N.
3 Saffran, Douglas C.
4 <120> TITLE OF INVENTION: PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF
5 <130> FILE REFERENCE: 30435.54USI4
6 <140> CURRENT APPLICATION NUMBER: 09/854,811
7 <141> CURRENT FILING DATE: 2001-05-14
10 <150> PRIOR APPLICATION NUMBER: 09/564,329
11 <151> PRIOR FILING DATE: 2000-05-03
15 <150> PRIOR APPLICATION NUMBER: 09/359,326
16 <151> PRIOR FILING DATE: 1999-07-20
18 <160> NUMBER OF SEQ ID NOS: 27
19 <170> SOFTWARE: PatentIn Ver. 2.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 998
23 <212> TYPE: DNA
24 <213> ORGANISM: HUMAN PSCA (hPSCA)
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30 <222> LOCATION: (580)
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36 <222> LOCATION: (604)
37 <223> OTHER INFORMATION: any nucleotide (i.e., a, c, g or t)
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39 <222> LOCATION: (608)
40 <223> OTHER INFORMATION: any nucleotide (i.e., a, c, g or t)
41 <221> NAME/KEY: misc_feature
42 <222> LOCATION: (615)
43 <223> OTHER INFORMATION: any nucleotide (i.e., a, c, g or t)
44 <221> NAME/KEY: misc_feature
45 <222> LOCATION: (636)
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49 <223> OTHER INFORMATION: any nucleotide (i.e., a, c, g or t)
50 <221> NAME/KEY: misc_feature

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61      tgcagccagg cactgccctg ctgtgctact cctgcaaagc ccaggtgagc aacgaggact 120
62      gcctgcaggt ggagaactgc acccagctgg gggagcagtg ctggaccgcg cgcacccgcg 180
63      cagttggcct cctgaccgtc atcagcaaag gctgcagctt gaactgcgtg gatgactcac 240
64      aggactacta cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca 300
65      gcggggccca tgccctgcag ccggctgccg ccacccctgc gctgctccct gcaactcggc 360
66      tgctgctctg gggacccggc cagctatagg ctctgggggg ccccgctgca gcccacactg 420
67      ggtgtgtgtg cccagggcct tgtgccaact ctcacagaac ctggcccagt gggagcctgt 480
68      cctggttcct gaggcacatc ctaacgcaag tttgaccatg tatgtttgca ccccttttcc 540
W--> 69      ccnaaccctg accttcccat gggccttttc caggattccn accnggcaga tcagttttag 600
W--> 70      tganacanat ccgcntgcag atggcccctc caacnttttn tgttgntggt tccatggccc 660
W--> 71      agcattttcc acccttaacc ctgtgttcag gcacttnttc cccaggaag ccttccctgc 720
72      ccaccccaatt tatgaattga gccaggtttg gtcctgtgtg tccccgcac ccagcagggg 780
73      acaggcaatc aggaggccc agtaaaggct gagatgaagt ggactgagta gaactggagg 840
74      acaagagttg acgtgagttc ctgggagttt ccagagatgg ggccctggagg cctggaggaa 900
W--> 75      gggggccaggc ctcacatttg tggggntccc gaatggcagc ctgagcacag cgtaggccct 960
76      taataaacac ctgttgata agccaaaaaa aaaaaaaa 998
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80 <212> TYPE: PRT
81 <213> ORGANISM: HUMAN PSCA (hPSCA)
82 <220> FEATURE:
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84 <222> LOCATION: (50)..(64)
85 <221> NAME/KEY: SITE
86 <222> LOCATION: (71)..(82)
87 <221> NAME/KEY: SITE
88 <222> LOCATION: (67)..(81)
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91      1          5          10          15
92      Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
93      20          25          30
94      Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
95      35          40          45
96      Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
97      50          55          60
98      Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
99      65          70          75          80
100     Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly

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Input Set : N:\Crif3\RULE60\09854811.raw

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101                      85                      90                      95
102      Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
103                      100                      105                      110
104      Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
105                      115                      120
107 <210> SEQ ID NO: 3
108 <211> LENGTH: 441
109 <212> TYPE: DNA
110 <213> ORGANISM: MURINE PSCA (mPSCA)
111 <400> SEQUENCE: 3
112      atgaagacag ttttttttat cctgctggcc acctacttag ccctgcatcc aggtgctgct 60
113      ctgcagtgct attcatgcac agcacagatg aacaacagag actgtctgaa tgtacagaac 120
114      tgcagcctgg accagcacag ttgctttaca tcgcgcatcc gggccattgg actcgtgaca 180
115      gttaacagta agggctgcag ctacacagtgt gaggatgact cggagaacta ctatttgggc 240
116      aagaagaaca tcacgtgctg ctactctgac ctgtgcaatg tcaacggggc ccacaccctg 300
117      aagccaccca ccaccctggg gctgctgacc gtgctctgca gcctgttgct gtggggctcc 360
118      agccgtctgt aggcctctggg agagcctacc atagcccgat tgtgaaggga tgagctgcac 420
119      tccacccccc cccacacacag g                                     441
121 <210> SEQ ID NO: 4
122 <211> LENGTH: 123
123 <212> TYPE: PRT
124 <213> ORGANISM: MURINE PSCA (mPSCA)
125 <400> SEQUENCE: 4
126      Met Lys Thr Val Phe Phe Ile Leu Leu Ala Thr Tyr Leu Ala Leu His
127      1                      5                      10                      15
128      Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
129      20                      25                      30
130      Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
131      35                      40                      45
132      Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
133      50                      55                      60
134      Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
135      65                      70                      75                      80
136      Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
137      85                      90                      95
138      Ala His Thr Leu Lys ProPro Thr Thr Leu Gly Leu Leu Thr Val Leu
139      100                      105                      110
140      Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu
141      115                      120
143 <210> SEQ ID NO: 5
144 <211> LENGTH: 131
145 <212> TYPE: PRT
146 <213> ORGANISM: HUMAN STEM CELL ANTIGEN (hSCA-2)
147 <400> SEQUENCE: 5
148      Met Lys Ile Phe Leu Pro Val Leu Leu Ala Ala Leu Leu Gly Val Glu
149      1                      5                      10                      15
150      Arg Ala Ser Ser Leu Met Cys Phe Ser Cys Leu Asn Gln Lys Ser Asn
151      20                      25                      30
152      Leu Tyr Cys Leu Lys Pro Thr Ile Cys Ser Asp Gln Asp Asn Tyr Cys

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153          35          40          45
154 Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu Val Thr Phe Gly
155          50          55          60
156 His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys Pro Ile Pro Glu Gly
157          65          70          75          80
158 Val Asn Val Gly Val Ala Ser Met Gly Ile Ser Cys Cys Gln Ser Phe
159          85          90          95
160 Leu Cys Asn Phe Ser Ala Ala Asp Gly Gly Leu Arg Ala Ser Val Thr
161          100          105          110
162 Leu Leu Gly Ala Gly Leu Leu Leu Ser Leu Leu Pro Ala Leu Leu Arg
163          115          120          125
164 Phe Gly Pro
165          130
167 <210> SEQ ID NO: 6
168 <211> LENGTH: 123
169 <212> TYPE: PRT
170 <213> ORGANISM: HUMAN PSCA (hPSCA)
171 <400> SEQUENCE: 6
172 Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln
173          1          5          10          15
174 Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
175          20          25          30
176 Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
177          35          40          45
178 Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
179          50          55          60
180 Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
181          65          70          75          80
182 Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
183          85          90          95
184 Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
185          100          105          110
186 Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
187          115          120
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192 <213> ORGANISM: MURINE PSCA (mPSCA)
193 <400> SEQUENCE: 7
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196 Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
197          20          25          30
198 Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
199          35          40          45
200 Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
201          50          55          60
202 Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
203          65          70          75          80

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Input Set : N:\Crf3\RULE60\09854811.raw

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204      Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
205                      85                      90                      95
206      Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
207                      100                      105                      110
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209                      115                      120
211 <210> SEQ ID NO: 8
212 <211> LENGTH: 20
213 <212> TYPE: DNA
214 <213> ORGANISM: Artificial Sequence
215 <220> FEATURE:
216 <223> OTHER INFORMATION: Description of Artificial Sequence: RT-PCR PRIMER
217 <400> SEQUENCE: 8
218      ttctcctgct ggccacctac                                     20
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221 <211> LENGTH: 20
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Description of Artificial Sequence: RT-PCR PRIMER
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229 <210> SEQ ID NO: 10
230 <211> LENGTH: 408
231 <212> TYPE: DNA
232 <213> ORGANISM: SCID Mice
233 <400> SEQUENCE: 10
234      tgcttcttcc tgatggcagt ggttatagga gtcaattcag aggttcagct gcagcagttct 60
235      ggggcagaac ttgtgaggtc aggggcctca gtcaagttgt cctgcacagc ttctggcttc 120
236      aacattaaag actactatat aactgggtg aatcagaggc ctgaccaggg cctggagtgg 180
237      attggatgga ttgatcctga gaatggtgac actgaatttg tcccgaagtt ccagggcaag 240
238      gccactatga ctgcagacat tttctccaac acagcctacc tgcacctcag cagcctgaca 300
239      tctgaagaca ctgccgtcta ttactgtaaa acgggggggtt tctggggcca agggactctg 360
240      gtcactgtct ctgcagccaa aacgacaccc ccatctgtct atccactg         408
242 <210> SEQ ID NO: 11
243 <211> LENGTH: 136
244 <212> TYPE: PRT
245 <213> ORGANISM: SCID Mice
246 <400> SEQUENCE: 11
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249      Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Ser Gly Ala Ser Val Lys
250      20              25              30
251      Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asp Tyr Tyr Ile His
252      35              40              45
253      Trp Val Asn Gln Arg Pro Asp Gln Gly Leu Glu Trp Ile Gly Trp Ile
254      50              55              60
255      Asp Pro Glu Asn Gly Asp Thr Glu Phe Val Pro Lys Phe Gln Gly Lys
256      65              70              75              80

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/854,811

DATE: 01/23/2002

TIME: 14:37:43

Input Set : N:\Crf3\RULE60\09854811.raw

Output Set: N:\CRF3\01232002\I854811.raw

L:69 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1

L:70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1

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L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1